

REMARKS

In the Office Action of April 9, 2004 on this application, Claims 36-40 and 44-47 were allowed, Claims 15-18 were objected to but indicated to be allowable if rewritten into independent form, and the remaining claims were rejected as anticipated by or unpatentable over references cited in the Office Action. By the amendment above, Claim 15 has been rewritten into independent form, and this claim and Claims 16-18 dependent thereon, should now also be in condition for allowance. Claims 41-43 and 48-51 have been cancelled. Claim 1 has been amended to incorporate the features of Claims 4-7 therein, and original dependent Claims 4-7 have been cancelled. Claims 2, 3 and 8-14, 19 and 20 remain dependent upon Claim 1 as amended. Claim 21 has been amended to incorporate the features of Claims 24-27 therein, and original dependent Claims 24-27 have been cancelled. Claims 22, 23 and 28-35 remain dependent upon Claim 21 as amended.

In the Office Action, Claims 6 and 7 (dependent upon Claim 1) and Claims 26 and 27 (dependent upon Claim 21) were rejected under 35 U.S.C. § 103(a) as unpatentable over the patent to Oh in view of Burns, et al., WO 98/22625. The Office Action noted that Oh does not specifically teach the use of trichlorosilane as a hydrophobic coating, but stated that Burns, et al. does teach the incorporation of trichlorosilane as a hydrophobic coating reagent in a microfluidic apparatus. As noted above, the features of Claims 6 and 7 have been incorporated into Claim 1 as amended and the features of Claims 26 and 27 have been incorporated into Claim 21 as amended.

In the present invention, the wettable flow guiding stripes can be formed by the deposition of self-assembled monolayers by appropriately controlling flowing streams of liquid material, and in particular trichlorosilanes, to form a non-wettable layer. It is submitted that it would not have been obvious to one of ordinary skill to utilize the specific trichlorosilane materials as specified in Claims 1 and 21, as amended, for microfluidic flow guiding without the benefit of applicants' teaching as to the advantages of such materials in producing such structures. There is no suggestion in Oh or Burns, et al. to combine these structures in this manner.

It is thus respectfully submitted that all of the claims remaining in the application should now be in condition for allowance, and favorable action thereon is respectfully solicited.

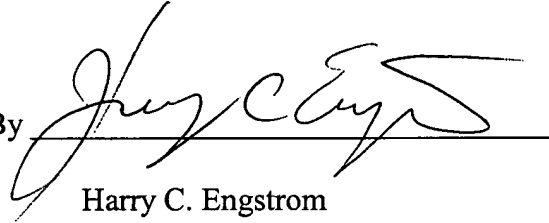
The Commissioner is hereby authorized to charge any additional fees which may be required regarding this application under 37 C.F.R. §§ 1.16-1.17, or credit any overpayment, to Deposit Account No. 50-2350. Should no proper payment be enclosed herewith, as by a check being in the wrong amount, unsigned, post-dated, otherwise improper or informal or even entirely missing, the Commissioner is authorized to charge the unpaid amount to Deposit Account No. 50-2350. If any extensions of time are needed for timely acceptance of papers submitted herewith, Applicant hereby petitions for such extension under 37 C.F.R. §1.136 and authorizes payment of any such extensions fees to Deposit Account No. 50-2350.

Respectfully submitted,

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By

A handwritten signature in dark ink, appearing to read "Harry C. Engstrom", is written over a horizontal line.

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